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- 1) System of transfer printing, in particular gilding, a motif lifted from a transfer film by a die, which is to be affixed on a receiving strip to form a product,
- 5 - the transfer film and the receiving strip being synchronised at the transfer station at the instant of transfer,
- characterised in that
- it comprises
- a means for driving (3) the transfer film (1),
 - 10 - a means for driving (5) the receiving strip (2),
 - a transfer station (4),
 - a control means (7) controlling the drive means, whereby the drive means (3, 31, 32) of the film (1) feeds the film (1) forward by a step (L1) corresponding to the motif to be transferred and the drive means (5) of the
 - 15 receiving strip (2) feeds said strip (2) forward by the step (L2) of the product (22, 23) in readiness for each transfer, and the transfer means (41, 42) of the transfer station (4).
- 2) System as claimed in claim 1,
- 20 characterised in that
- the transfer element (41) at the transfer station (4) is activated by a jack (42), the control means (7) immobilising the film (1) and the strip (2) during the time the transfer is being operated.
- 25 3) System as claimed in claim 1,
- characterised in that
- the transfer means (4A) comprises at least one transfer element (411A, 412A) mounted on a rotary element (41A) and the means for driving (3A) the film (1A) and that of the receiving strip (2A) are controlled (7A) so as to drive the film (1A)
- 30 and the receiving strip (2A) at the same speed as the peripheral speed of the transfer element (41A) during the time the transfer is being operated.

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4) System as claimed in claim 1,
characterised by
a first detector (71, 71A) assigned to the strip (2, 2A) to detect the step (L2) of the
5 product and supply a signal (S) to the control means (7A) managing the forward
movement of the strip (2A); and
the strip (2, 2A) has pre-printed markers (23, 23A) designed to be read by the
detection means (71, 71A).

10 5) System as claimed in claim 1,
characterised in that
it has a second detector (72C) assigned to the film (1C) to detect the motif (14C)
of the film (1C) and supply a signal (S2) to the control means (7C) managing the
drive means of the film (1C).

15 6) System as claimed in claim 1,
characterised in that
the means for driving the film (1) and the means for driving the receiving strip (2)
both operate step by step or one is operated step by step and the other continuously
20 or both are operated continuously.

7) System as claimed in claim 1,
characterised by
several means, disposed in parallel, for driving films (1B, 1'B) so that several
25 motifs can be transferred to the receiving strip (2B) simultaneously.

8) System as claimed in claim 1,
characterised in that
the transfer element (41F) is a cylinder, which prints the successive motifs with an
30 offset in order to reduce overlapping thicknesses when the strip is reeled or the
sheets cut from the strip are stacked after the transfer.

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Conclude

9) System as claimed in claim 8,
characterised in that
the transfer elements (411E, 412E) of the transfer cylinder (41F) are distributed
5 around a cylinder with a circular section in an offset arrangement following a line
corresponding to the intersection of the cylinder by an inclined plane (ellipse).

10) System as claimed in claim 8,
characterised in that
10 the transfer elements (411F) and (412F) are designed to apply to the strip (2A)
polychromatic motifs with or without metal, holographic motifs and zones intended
to permit binary recordings, the material for this purpose being lifted from the
transfer strip (1) or (1A).

11) System as claimed in claim 9,
characterised in that
the transfer elements (411F) and (412F) are designed to apply to the strip (2E) an
antenna of various shapes and dimensions incorporating amplifiers for example, in
order to optimise the effect of a magneto-strictive coating with a thickness of 25 to
20 900 Angström, designed to resonate in an alternating electromagnetic field
generated at a selected frequency between 73 and 530 Hz and which will cause no
resonance when deactivated,

12) System as claimed in claim 9,
25 characterised in that
the transfer elements (411E) and 412E) are designed to enable the transfer of
various shapes and dimensions of printed circuits having insulating and conductive
layers, one or more chips in order to transfer onto a strip (2D) an antenna capable
of recording, calculating and emitting in order to provide an intelligent marker.

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